

AMENDMENTS TO THE CLAIMS

1. (Currently amended) An optical fiber making method comprising the steps of:

inserting an optical fiber preform into a furnace core tube of a draw furnace;

heating the furnace core tube with a main heater to heat and melt a lower end portion of the optical fiber preform; ~~and~~

drawing an optical fiber from the lower end of the optical fiber preform;

~~wherein, while drawing the optical fiber, measuring the glass draw tension of the optical fiber while drawing to obtain a measured glass draw tension; and~~

changing an amount of heat applied to the lower end portion of the optical fiber preform is changed in response to the measured glass draw tension, without depending solely on the main heater, to change a the measured glass draw tension to a predetermined value and thereby change a local chromatic dispersion along a longitudinal direction of the optical fiber being manufactured.

2. (Currently amended) An optical fiber making method according to claim 1, wherein a gas is supplied to a periphery of the lower end portion of the optical fiber preform, the method comprising changing the and at least one of gas flow rate and or gas composition, is changed to change thereby changing the amount of heat applied to the lower end portion of the optical fiber preform.

3. (Withdrawn) An optical fiber making method according to claim 1, wherein an amount of heat supplied from an auxiliary heater provided close to the lower end portion of

the optical fiber preform is changed to change the amount of heat applied to the lower end portion of the optical fiber preform.

4. (Withdrawn) An optical fiber making method according to claim 1, wherein a part of the heat dissipated from the furnace core tube or the lower end portion of the optical fiber preform is controlled and the dissipating condition is changed, so as to change the amount of heat applied to the lower end portion of the optical fiber preform.

5. (Withdrawn) An optical fiber making method according to claim 1, wherein a positional relation between the optical fiber preform and the furnace core tube are changed to change the amount of heat applied to the lower end portion of the optical fiber preform.

6. (Cancelled)

7. (Withdrawn) An optical fiber making apparatus comprising:
a draw furnace having a furnace core tube into which an optical fiber preform is inserted and a main heater to heat the furnace core tube, the draw furnace heating and melting a lower end portion of the optical fiber preform;
a feeder to feed the optical fiber preform into the furnace core tube;
a draw means to draw an optical fiber from the lower end of the optical fiber preform in the draw furnace; and
a draw tension adjust means to adjust a draw tension by adjusting the amount of heat applied to the lower end portion of the optical fiber preform.

8. (Withdrawn) An optical fiber making apparatus according to claim 7, wherein the draw tension adjust means has a gas supply means for supplying a gas to a periphery of the lower end portion of the optical fiber preform, and the gas supply means varies either or both of flow and composition of the gas supplied.

9. (Withdrawn) An optical fiber making apparatus according to claim 7, wherein the draw tension adjust means has an auxiliary heater disposed close to the lower end portion of the optical fiber preform and controllable independently of the main heater.

10. (Withdrawn) An optical fiber making apparatus according to claim 7, wherein the draw tension adjust means has:

an insulating means disposed close the lower end portion of the optical fiber preform to control heat dissipated from the furnace core tube or the lower end portion of the optical fiber preform; and

an insulating means varying device to change a position or state of the insulating means.

11. (Withdrawn) An optical fiber making apparatus according to claim 7, wherein a tension measuring means to measure an actually applied draw tension is provided and the draw tension adjust means controls the amount of heat applied to the lower end portion of the optical fiber preform so that the draw tension measured by the tension measuring means becomes a predetermined value.

REMARKS

Claims 1 through 5 and 7 through 11 are pending this application, of which claims 3 through 5 and 7 through 11 stand withdrawn from consideration pursuant to the provisions of 37 C.F.R. §1.142(b). Claim 1 has been amended by incorporating the limitations of claim 6 therein, claims 1 and 6 being generic to the identified species of claims 2, 3, 4 and 5, claim 2 being the elected species. Claim 2 has also been amended consistent with the amendment to claim 1. Care has been exercised to avoid the introduction of new matter.

Claims 1 and 2 were rejected under 35 U.S.C. §103 for obviousness predicated upon Clayton in view of Blakenship.

In the statement of the rejection, the Examiner concluded that one having ordinary skill in the art would have been motivated to modify Clayton's method by incorporating a muffle. The Examiner further stated that the amount of heat continuously changes. This rejection is traversed.

There are fundamental differences between the manipulative steps of the method set forth in claims 1 and 2 and the applied prior art that undermine the obviousness conclusion under 35 U.S.C. §103. Specifically, independent claim 1 is drawn from a method comprising a sequence of manipulative steps which includes measuring the glass draw tension of the optical fiber while drawing to obtain a measured glass draw tension and then changing the amount of heat applied to the lower end portion of the optical fiber preform in response to the measured glass draw tension, without depending solely on a main heater, to change the measured glass draw tension to a predetermined value thereby altering the local chromatic dispersion along a longitudinal direction of the optical fiber. It is not apparent

wherein either of the applied references discloses such manipulative steps. That the amount of heat applied during a method may or may not vary continuously is not particularly relevant with respect to the claimed manipulative steps requiring measuring glass draw tension and altering the amount of heat applied to the lower end portion in response to that measurement to achieve a predetermined glass draw tension. Accordingly, even if the applied references are combined, the claimed invention would not result. *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988).

Applicants separately argue the patentability of claim 2 which requires the manipulative step of altering the gas flow rate and/or gas composition which is supplied to a periphery of the lower end portion of the optical fiber to achieve a change in the amount of heat applied thereto.

Applicants, therefore, submit that the imposed rejection of claims 1 and 2 under 35 U.S.C. §103 for obviousness predicated upon Clayton in view of Blakenship is not factually or legally viable and, hence, solicits withdrawal thereof.

Applicants further solicit rejoinder of nonelected species claims 3 through 5 based upon the allowability of claim 1.

It should, therefore, be apparent that the imposed rejection has been overcome and that active claims 1 through 5 are in condition for immediate allowance. Favorable consideration is, therefore, respectfully solicited.

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To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'AJS', is written over the printed name 'Arthur J. Steiner'.

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